

Grade 2 Math Scoring Guidance

2015-2016 NYC Baseline Performance Tasks

Instructions

- The following pages contain guidance on the scoring of the above-named NYC Performance Task.
- Distribute this guide to all staff scoring the task. *Please note: Fall baseline tasks may be administered and scored by the regular classroom teacher and results may be used to plan for instruction throughout the year.*
- The scoring guidance is intended to be used in conjunction with the rubric, which details indicators of performance levels on all rubric traits.

Overview of the NYC Performance Tasks

The NYC Performance Tasks are comparable baseline and End-of-Year, open-ended assessment pairs that are offered in math, ELA, science, and social studies and promote the instructional shifts of argument and critique, use and analysis of evidence, and exposure to complex texts. The tasks are designed for students to demonstrate their skills in reviewing and analyzing presented evidence and creating an evidence-based argument.

The tasks respond to and support the diversity of curriculum and instruction that exist across NYC schools and act as a resource in these varied settings to support collaborative discourse around curriculum, instruction, and assessment. Tasks are designed to support the Citywide Instructional Expectations by promoting knowledge of students, facilitating alignment to an instructional focus, and developing a culture of collaborative professional learning.

A skills-based, standards-driven rubric accompanies each task and, where feasible, is content agnostic so that it can be used in a variety of ways with other curricular and instructional materials. Rubrics are aligned to the Common Core standards and content-specific New York State standards where appropriate. Topic selection in each grade and subject was influenced by New York City scope and sequence documents.

The following scoring guide structure was adapted from CPET and provides annotated student work samples that show the relationship between the student response and the criteria in the rubric. A matrix of rubric scores and rationales follows each individual student work sample. The guide can also be used to norm scoring practices across teams of educators.

Design Principles for the Math Performance Tasks

Focus Standards

While there may be multiple Common Core standard alignments (partial or full) for each trait in the rubric, the focus standards are used to inform design consistency across grades. In math, the Practices are used as the unifying design principle across grades in lieu of content standards. Grade-level content standard alignment is represented on each rubric.

- MP1: Make sense of problems and persevere in solving them
- MP4: Model with mathematics

See the last page of this guide for a chart of standards alignment per rubric trait across all grade levels.

Design Concept

The design concept for math addresses the following in each grade band:

Grades K-1

- Inventory

Grades 2-12

- Presentation of context
- Multiple mini-task questions addressing that one context

Content and Structure

The topic (e.g., "plants") in each task is used to provide context for students to demonstrate mastery of the focus standards and content standards in math. The design of the task is not for students to demonstrate content knowledge on any particular topic. The content standards chosen represent the major work of the grade, and are structured to measure both discrete and complex skill mastery. Unlike other subject area rubrics, rubric traits in math measure the total allowable score points per question; therefore, not every trait on the rubric has descriptors through four points.

Grade 2 Math Scoring Guidance

Task Overview

NYC Mathematics Performance Tasks are mathematics tasks in which students are presented with a series of connected questions. Each question on the task is intended to address understanding and proficiency of mathematical content, as well as engagement with mathematical practices.

Student Task

Students produce **a numerical** and/or written response. Sample student responses have been provided to you; further information regarding these annotated student works are provided below.

Evaluator Task

You are being asked to use your best, professional judgment to score these student responses using the rubric provided.

General Instructions for Using the Rubric

- (1) Scorers will use the separate rubric provided to assess student performance.
- (2) These traits are being scored for content and practice. Point values may vary from question to question, and there is no eligible point value for areas on the rubric that are blank.
- (3) You are to provide one score for each rubric trait. Please be sure to enter all trait scores on the appropriate Schoolnet Answer Sheet for each student. The final score for the task will be calculated elsewhere.
- (4) All student work in the task booklet should be scored, regardless of whether the student completed or attempted every question.
- (5) A score of “Zero (0) – No attempt” should be considered carefully before being used. See included student work samples for guidance. Scores of “Zero (0) – No attempt” should only be given if:
 - (a) a student did not attempt that question on **any portion** of the task, or
 - (b) if his/her work is **completely copied** directly from the task or texts, or
 - (c) if his/her work is completely unrelated to the question or prompt.

Annotated Student Work

The following pages include annotated student work samples at a variety of performance levels. The samples have been annotated to highlight student responses in relation to the rubric traits. Each sample is followed by a summary page indicating the sample’s score on each rubric trait, in addition to the reasoning for the score. Please review these samples both independently and **with a team** to ensure a common understanding of the rubric traits at all performance levels.

Best Practices for Scoring

- Before scoring a specific task, teacher **teams** should review the task and the rubric and discuss expected performance at each level for each rubric trait.
- As a group, review annotated student work and **discuss evidence for each score**, including discussing non-blank, zero-scored traits. Work to understand the provided scores and rationales for one sample.
- Individually score a few provided student work samples. After working individually, **compare your assigned scores** to those given by others and to the provided scores and rationales. Be sure you understand how each score was assigned, and that your team agrees, before moving to independent work.
- After independently completing a set of student work from your school, review the set with the group to see if you have drifted away from your original scoring, becoming either more severe or more lenient in response to the task. Consistent scoring is important.



Schools in Alphabet City

In Alphabet City there are four schools. Below are the names of the schools and the number of students in the schools.



River Park
639 Students



Oak Glen
860 Students



Green Grove
632 Students



Lake Forest
847 Students

1 Which school has the most students? Oak Glen

T1

The student correctly identifies Oak Glen as the school with the most students.

2 Which school has the least students? Green Grove

T2

The student correctly identifies Green Grove as the school with the least students.

3 How many more students go to Lake Forest than to River Park? 208 students students

Show your work here.

$$\begin{array}{r} 847 \\ - 639 \\ \hline 208 \end{array}$$

T3

The student correctly calculates 208 as the difference between the two schools. Accurate work is shown.

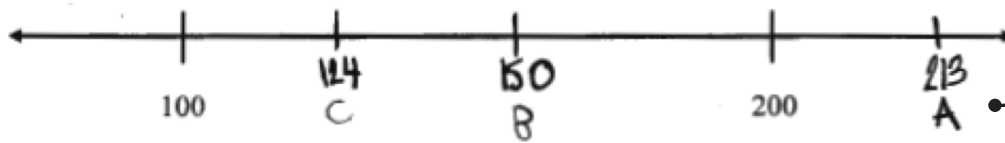


The table below shows the number of students in three of the grades at Green Grove.

Grades at Green Grove

Grade	Number of Students
A	213
B	150
C	124

Mr. Adams drew a number line on the whiteboard. He wants to place each grade on the number line.



T4

Points A, B and C are placed in an approximately correct location.

- 4a Label a point on the number line to represent the number of students in Grade A. Place A on the number line where it belongs.
- 4b Label a point on the number line to represent the number of students in Grade B. Place B on the number line where it belongs.
- 4c Label a point on the number line to represent the number of students in Grade C. Place C on the number line where it belongs.
- 4d How did you know where to place C on the number line?

I knew to place C behind B because it is less than B and A.

T4

The student writes the letter C in an approximately correct location. The student explains that C is placed behind B because C is less than B.



Grades at Green Grove

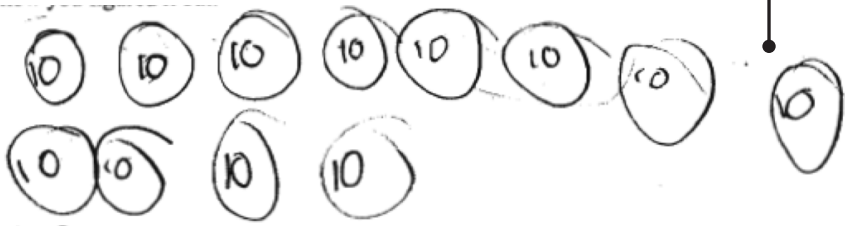
Grade	Number of Students
A	213
B	150
C	124

- 5 Use the table "Grades at Green Grove." Grade C students go to art class in groups of 10 students at a time.

How many students are in Grade C? 124 students

How many groups of ten students are in Grade C? 12 groups

Show your work.



T5

The student correctly determines 12 groups of ten and then shows the reasoning through drawing pictures of 12 groups of ten.

- 6 Use the table "Classes at Green Grove." Grade A students go to the assembly in groups of 100 students at a time.

How many students are in Grade A? 213 students

How many groups of 100 students are in Grade A? 2 groups

Show your work.

A	213
B	150
C	124

Class A students go to assembly at a time

Hundreds	Tens	Ones
2	1	3
1	0	0

T6

The student correctly determines 2 groups of one hundred and then shows the reasoning through drawing a place value diagram, indicating 2 hundreds, 1 ten, and 3 ones in 213.

Sample A - Anchor Paper Commentary

Subject/Course: Math

Task Title: Schools in Alphabet City

Grade Level: 2

Year: 2015-2016

Rubric Traits	Anchor Score	Commentary/Rationale	Maximum Score
T1 Trait 1	1	The student correctly identifies Oak Glen as the school with the most students.	1
T2 Trait 2	1	The student correctly identifies Green Grove as the school with the least students.	1
T3 Trait 3	2	The student correctly calculates the 208 as the difference between the two schools. Accurate work is shown.	2
T4 Trait 4 (a-d)	4	<p>The student writes the letter A in an approximately correct location.</p> <p>The student writes the letter B in an approximately correct location.</p> <p>The student writes the letter C in an approximately correct location. The student explains that C is placed behind B because C is less than B.</p>	4
T5 Trait 5	2	The student correctly determines 12 groups of ten and then shows the reasoning through drawing pictures of 12 groups of ten.	2
T6 Trait 6	2	The student correctly determines 2 groups of one hundred and then shows the reasoning through drawing a place value diagram, indicating 2 hundreds, 1 ten, and 3 ones in 213.	2

Score = 12/12, Level 4: Exceeding Standards

Schools in Alphabet City

In Alphabet City there are four schools. Below are the names of the schools and the number of students in the schools.



River Park
639 Students



Oak Glen
860 Students



Green Grove
632 Students



Lake Forest
847 Students

1 Which school has the most students? Oak Glen

T1

The student correctly identifies Oak Glen as the school with the most students.

2 Which school has the least students? Green Grove

T2

The student correctly identifies Green Grove as the school with the least students.

3 How many more students go to Lake Forest than to River Park? 208 students **students**

Show your work here.

847	Oak Glen has more students
-639	Green Grove has the least students
208	

T3

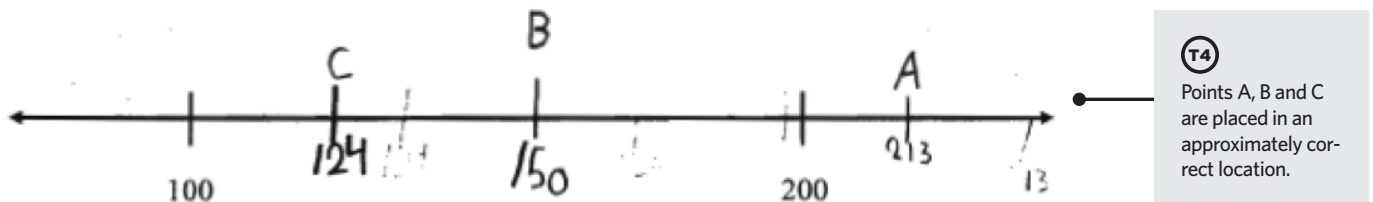
The student correctly calculates 208 as the difference between the two schools. Accurate work is shown.

The table below shows the number of students in three of the grades at Green Grove.

Grades at Green Grove

Grade	Number of Students
A	213
B	150
C	124

Mr. Adams drew a number line on the whiteboard. He wants to place each grade on the number line.



- 4a** Label a point on the number line to represent the number of students in Grade A. Place A on the number line where it belongs.
- 4b** Label a point on the number line to represent the number of students in Grade B. Place B on the number line where it belongs.
- 4c** Label a point on the number line to represent the number of students in Grade C. Place C on the number line where it belongs.
- 4d** How did you know where to place C on the number line?

A will be before 200.

B will be in the middill.

I knew to place c next to the one handreds place because it has a one so it is on the one handreds place.

T4

The student explains that C is placed next to 100 because of the hundred's place.

Grades at Green Grove

Grade	Number of Students
A	213
B	150
C	124

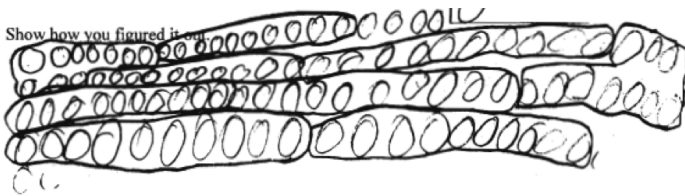
- 5** Use the table "Grades at Green Grove." Grade C students go to art class in groups of 10 students at a time.

How many students are in Grade C? 124 students

How many groups of ten students are in Grade C? 9 groups

Show your work.

Show how you figured it out.



T5

The student determines 9 groups of ten and then attempts to show reasoning through a drawing.

- 6** Use the table "Classes at Green Grove." Grade A students go to the assembly in groups of 100 students at a time.

How many students are in Grade A? 213 students

How many groups of 100 students are in Grade A? 2 groups

Show your work.

T6

The student correctly determines 2 groups of one hundred but shows no work.

Sample B - Anchor Paper Commentary

Subject/Course: Math

Task Title: Schools in Alphabet City

Grade Level: 2

Year: 2015-2016

Rubric Traits	Anchor Score	Commentary/Rationale	Maximum Score
T1 Trait 1	1	The student correctly identifies Oak Glen as the school with the most students.	1
T2 Trait 2	1	The student correctly identifies Green Grove as the school with the least students.	1
T3 Trait 3	2	The student correctly calculates the 208 as the difference between the two schools. Accurate work is shown.	2
T4 Trait 4 (a-d)	4	<p>The student writes the letter A in an approximately correct location.</p> <p>The student writes the letter B in an approximately correct location.</p> <p>The student writes the letter C in an approximately correct location. The student explains that C is placed next to 100 because of the hundred's place.</p>	4
T5 Trait 5	0	The student determines 9 groups of ten and then attempts to show reasoning through a drawing.	2
T6 Trait 6	1	The student correctly determines 2 groups of one hundred but shows no work.	2

Score = 9/12, Level 3: Meeting Standards



Schools in Alphabet City

In Alphabet City there are four schools. Below are the names of the schools and the number of students in the schools.



River Park
639 Students



Oak Glen
860 Students



Green Grove
632 Students



Lake Forest
847 Students

1 Which school has the most students? Oak Glen

T1

The student correctly identifies Oak Glen as the school with the most students.

2 Which school has the least students? Green Grove

T2

The student correctly identifies Green Grove as the school with the least students.

3 How many more students go to Lake Forest than to River Park? 208 students students

Show your work here.

$$\begin{array}{r} 847 \\ -639 \\ \hline 208 \end{array}$$

I used vertical to solve it.

T3

The student correctly calculates 208 as the difference between the two schools. Accurate work is shown.



The table below shows the number of students in three of the grades at Green Grove.

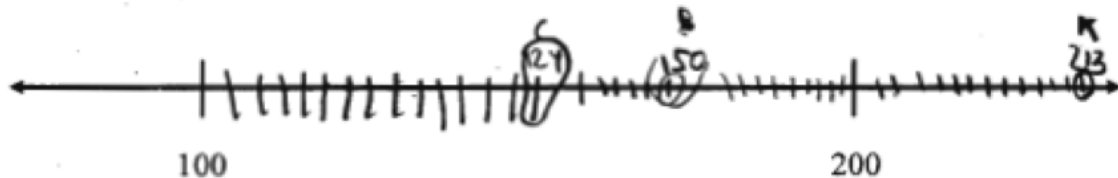
Grades at Green Grove

Grade	Number of Students
A	213
B	150
C	124

T4

Points A, B and C are placed using scale marks as a measurement tool. However, the scale measurements are not accurate for Points B and C.

Mr. Adams drew a number line on the whiteboard. He wants to place each grade on the number line.



- 4a** Label a point on the number line to represent the number of students in Grade A. Place A on the number line where it belongs.
- 4b** Label a point on the number line to represent the number of students in Grade B. Place B on the number line where it belongs.
- 4c** Label a point on the number line to represent the number of students in Grade C. Place C on the number line where it belongs.
- 4d** How did you know where to place C on the number line?

I knew where to place c because I used lines to find c on the number line. That's hoe

I knew where c would be at. Now you know about where c would be and at. And c is the

number 124 is next to 100.

T4

The student explains that they found Point C using scale marks.



Grades at Green Grove

Grade	Number of Students
A	213
B	150
C	124

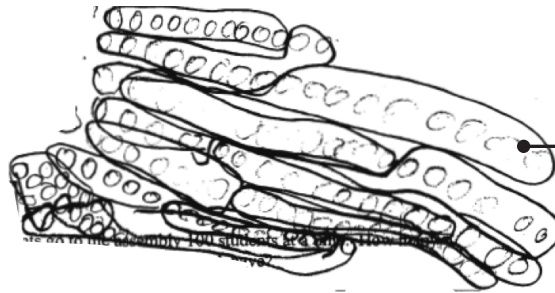
- 5 Use the table "Grades at Green Grove." Grade C students go to art class in groups of 10 students at a time.

How many students are in Grade C? 124 students

How many groups of ten students are in Grade C? 124 groups

Show your work.

I used circles to solve class c.



T5

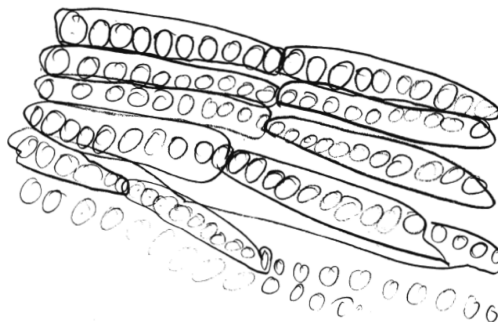
The student incorrectly determines 124 groups of ten and then shows the reasoning through drawing pictures of groups of ten.

- 6 Use the table "Classes at Green Grove." Grade A students go to the assembly in groups of 100 students at a time.

How many students are in Grade A? 213 students

How many groups of 100 students are in Grade A? 10 groups

Show your work.



T6

The student incorrectly determines 10 groups of one hundred and then shows the reasoning through drawing ten groups of ten, but this reasoning is not sound for the task.

Sample C - Anchor Paper Commentary

Subject/Course: Math

Task Title: Schools in Alphabet City

Grade Level: 2

Year: 2015-2016

Rubric Traits	Anchor Score	Commentary/Rationale	Maximum Score
T1 Trait 1	1	The student correctly identifies Oak Glen as the school with the most students.	1
T2 Trait 2	1	The student correctly identifies Green Grove as the school with the least students.	1
T3 Trait 3	2	The student correctly calculates the 208 as the difference between the two schools. Accurate work is shown.	2
T4 Trait 4 (a-d)	2	<p>The student uses scale marks to measure and writes the letter A in a location not very exact.</p> <p>The student uses scale marks to measure and writes the letter B in a location not very exact.</p> <p>The student uses scale marks to measure and writes the letter C in a location not very exact. The student explains that he found C measuring through scale marks.</p>	4
T5 Trait 5	0	The student incorrectly determines 124 groups of ten and then shows the reasoning through drawing pictures of groups of ten.	2
T6 Trait 6	0	The student incorrectly determines 10 groups of one hundred and then shows the reasoning through drawing ten groups of ten, but this reasoning is not sound for the task.	2

Score = 6/12, Level 2: Approaching Standards

Schools in Alphabet City

In Alphabet City there are four schools. Below are the names of the schools and the number of students in the schools.



River Park
639 Students



Oak Glen
860 Students



Green Grove
632 Students



Lake Forest
847 Students

1 Which school has the most students? Oak Glen

T1

The student correctly identifies Oak Glen as the school with the most students.

2 Which school has the least students? Green Grove

T2

The student correctly identifies Green Grove as the school with the least students.

3 How many more students go to Lake Forest than to River Park? 208 students students

Show your work here.

$$\begin{array}{r} 847 \\ -639 \\ \hline 208 \end{array}$$

T3

The student correctly calculates 208 as the difference between the two schools. Accurate work is shown.



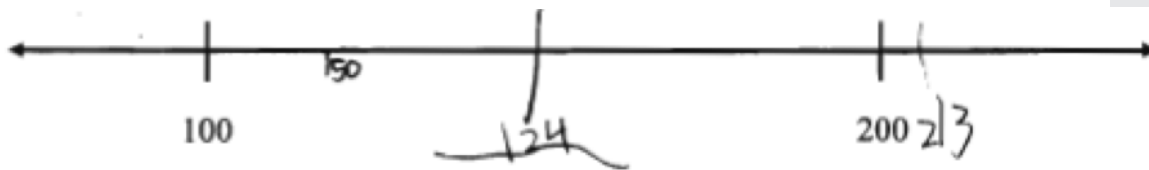
The table below shows the number of students in three of the grades at Green Grove.

Grades at Green Grove

Grade	Number of Students
A	213
B	150
C	124

T4

The student writes the letter A in a correct location but places B in an incorrect location.



- 4a Label a point on the number line to represent the number of students in Grade A. Place A on the number line where it belongs.
- 4b Label a point on the number line to represent the number of students in Grade B. Place B on the number line where it belongs.
- 4c Label a point on the number line to represent the number of students in Grade C. Place C on the number line where it belongs.
- 4d How did you know where to place C on the number line?

I knew to put C on the middle.

T4

The student writes the letter C in an incorrect location. The student's explanation is incorrect, as it states C is in the middle.



Grades at Green Grove

Grade	Number of Students
A	213
B	150
C	124

- 5 Use the table "Grades at Green Grove." Grade C students go to art class in groups of 10 students at a time.

How many students are in Grade C? _____ students

How many groups of ten students are in Grade C? _____ groups

Show your work.

T5

The student leaves the question blank.
No points are awarded.

- 6 Use the table "Classes at Green Grove." Grade A students go to the assembly in groups of 100 students at a time.

How many students are in Grade A? _____ students

How many groups of 100 students are in Grade A? _____ groups

Show your work.

T6

The student leaves the question blank.
No points are awarded.

Sample D - Anchor Paper Commentary

Subject/Course: Math

Task Title: Schools in Alphabet City

Grade Level: 2

Year: 2015-2016

Rubric Traits	Anchor Score	Commentary - Rationale	Maximum Score
T1 Trait 1	1	The student correctly identifies Oak Glen as the school with the most students.	1
T2 Trait 2	1	The student correctly identifies Green Grove as the school with the least students.	1
T3 Trait 3	2	The student correctly calculates the 208 as the difference between the two schools. Accurate work is shown. Two points are awarded, one for the answer and one for correct work.	2
T4 Trait 4 (a-d)	1	<p>The student writes the letter A in an approximately correct location.</p> <p>The student writes the letter B in an incorrect location.</p> <p>The student writes the letter C in an incorrect location. The student's explanation is incorrect, as it states C is in the middle.</p>	4
T5 Trait 5	0	The student leaves the question blank.	2
T6 Trait 6	0	The student leaves the question blank.	2

Score = 5/12, Level 2: Approaching Standards



Schools in Alphabet City

In Alphabet City there are four schools. Below are the names of the schools and the number of students in the schools.



River Park
639 Students



Oak Glen
860 Students



Green Grove
632 Students



Lake Forest
847 Students

1 Which school has the most students? Oak Glen

T1

The student correctly identifies Oak Glen as the school with the most students.

2 Which school has the least students? Green Grove

T2

The student correctly identifies Green Grove as the school with the least students.

3 How many more students go to Lake Forest than to River Park? 608 students students

Show your work here.

T3

The student incorrectly calculates 608 as the difference between the two schools. No work is shown.



The table below shows the number of students in three of the grades at Green Grove.

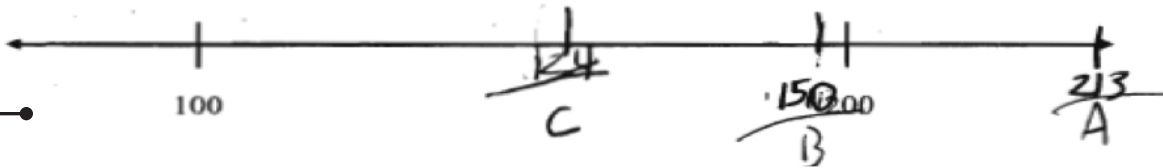
Grades at Green Grove

Grade	Number of Students
A	213
B	150
C	124

T4

The student writes letters A, B and C in incorrect locations.

Mr. Adams drew a number line on the whiteboard. He wants to place each grade on the number line.



- 4a** Label a point on the number line to represent the number of students in Grade A. Place A on the number line where it belongs.
- 4b** Label a point on the number line to represent the number of students in Grade B. Place B on the number line where it belongs.
- 4c** Label a point on the number line to represent the number of students in Grade C. Place C on the number line where it belongs.
- 4d** How did you know where to place C on the number line?

I knew to place c because 124 is not in th 200 and I knew it cant not be B or A because
the number is not 213 and not 150 that the way that I got c.

T4

The student explains some reasoning about C's relative position to the 200 as well as A and B, but does not realize 124 is not in the middle of 100 and 200.



Grades at Green Grove

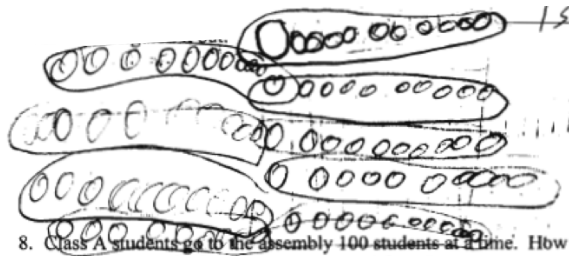
Grade	Number of Students
A	213
B	150
C	124

- 5 Use the table "Grades at Green Grove." Grade C students go to art class in groups of 10 students at a time.

How many students are in Grade C? ¹²⁴ students

How many groups of ten students are in Grade C? ¹³⁰ groups

Show your work.



T5

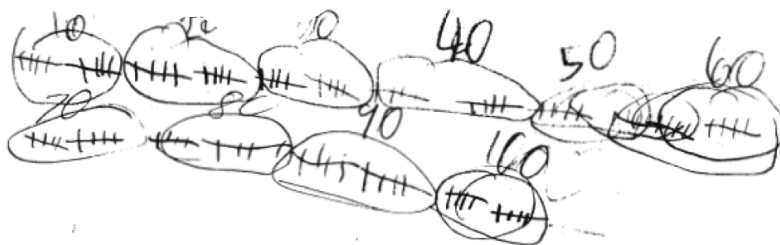
The student incorrectly determines 130 groups of ten and then shows reasoning through drawing pictures of 9 groups of ten.

- 6 Use the table "Classes at Green Grove." Grade A students go to the assembly in groups of 100 students at a time.

How many students are in Grade A? ²¹³ students

How many groups of 100 students are in Grade A? ¹³¹ groups

Show your work.



T6

The student incorrectly determines 131 groups of one hundred and then shows ten groups of ten tally marks and indicates 100. The reasoning does not match the task.

Sample E - Anchor Paper Commentary

Subject/Course: Math

Task Title: Schools in Alphabet City

Grade Level: 2

Year: 2015-2016

Rubric Traits	Anchor Score	Commentary/Rationale	Maximum Score
T1 Trait 1	1	The student correctly identifies Oak Glen as the school with the most students.	1
T2 Trait 2	1	The student correctly identifies Green Grove as the school with the least students.	1
T3 Trait 3	0	The student incorrectly calculates 608 as the difference between the two schools. No work is shown.	2
T4 Trait 4 (a-d)	0	The student writes the letter A in an incorrect location. The student writes the letter B in an incorrect location. The student writes the letter C in an incorrect location. The student explains some reasoning about C's relative position to the 200 as well as A and B, but does not realize 124 is not in the middle of 100 and 200.	4
T5 Trait 5	0	The student incorrectly determines 130 groups of ten and then shows the reasoning through drawing pictures of 9 groups of ten.	2
T6 Trait 6	0	The student incorrectly determines 131 groups of one hundred and then shows groups of ten groups of ten tally marks and indicates 100. The reasoning does not match the task.	2

Score = 2/12, Level 1: Attempting Standards

Trait to Standard Alignment Chart

		Common Core standards											
Trait	Question	K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Algebra 1	Algebra 2	Geometry
1	1	K.CC.1	1.NBT.1	2.NBT.4	3.MD.7b	4.OA.2	3.NF.1	6.RP.1	7.EE.3	8.F.4	F.IF.4	G.SRT.8	G.CO.9
2	2	K.CC.2	2.NBT.2	2.NBT.4	3.OA.6	4.MD.3	5.NF.1	6.RP.3a	7.EE.1	8.F.4	F.IF.6	G.SRT.8	G.CO.10
3	3	1.NBT.1	1.NBT.5	2.NBT.7	4.NBT.6	4.OA.4	5.NF.1	6.EE.9	7.RP.3	8.F.4	F.BF.1a,b and F.BF.2	G.SRT.8	G.SRT.4
4	4	K.CC.1	2.NBT.8	2.NBT.4	3MD.7b	4.NBT.5	5.NF.4a	6.RP.3c	7.EE.2	8.EE.8b	4.OA.5	G.SRT.8	G.SRT.5
5	5	1.NBT.5	1.NBT.1	2.NBT.1	3.NBT.3	4.OA.5	5.NF.2	6.RP.3b	7.EE.2	8.EE.8a	F.BF.1a,b and F.BF.2	F.BF.1a	G.SRT.5
6	6	K.CC.3	2.NBT.3	2.NBT.1	3.OA.3	4.MD.2	5.NF.3	6.RP.2	7.RP.3	8.F.2	F.IF.5	F.TF.8	G.CO.5
7	7	1.NBT.1	1.NBT.3		3.OA.8	4.OA.3	5.NF.7b	6.RP.3	7.EE.4b	8.F.4	A.REI.7		G.SRT.5
8	8	K.CC.4	2.NBT.4				5.NF.7a				A.SSE.3a		
9	9	K.CC.6	1.OA.7										
10	10	1.NBT.3	2.OA.2										
11	11	K.OA.1	1.OA.1										
12	12	1.OA.7	2.OA.1										
13	13	K.OA.2											
14	14	1.OA.1											